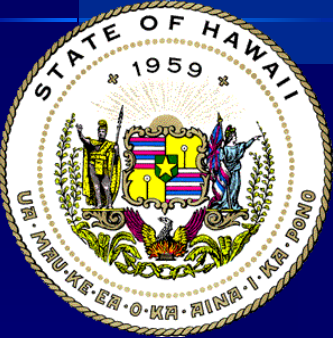
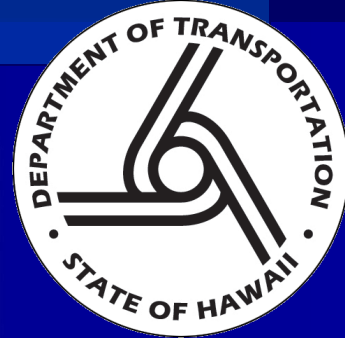


Runway 2-20 Structural Improvements Project, Kahului Airport



State Project No. AM1022-14



Kahului - Construction History

Runway 2-20

- 1942 original construction
 - 3-inch HMAC layer
 - 8-inch cinder base layer
- Five subsequent AC overlays
 - 1969 – 1972 – 1981 – 1995 – 2000 (\$4.2 million)
- Partial 3-inch AC mill and overlay in 2006 (\$3.4 million)
- Current AC thickness: 16 to 18 inches



Unscheduled Intermittent Pavement Repairs

- 2008-2010: \$1.3 million from the airports special maintenance budget
- 2009: FAA informed HDOT it would no longer fund pavement maintenance repairs of Runway 2-20
- 2011: \$1 million from the airports special maintenance budget
- Repairs expected to increase 10 to 15 percent each year

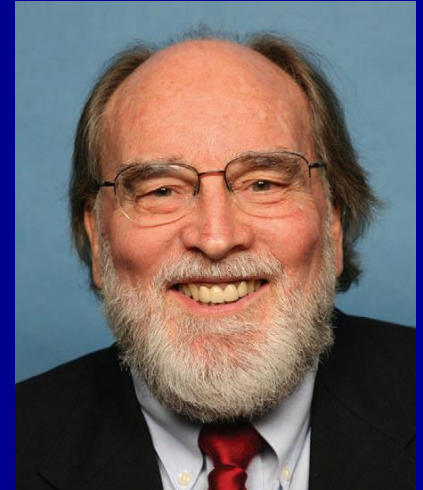


Pavement Issues

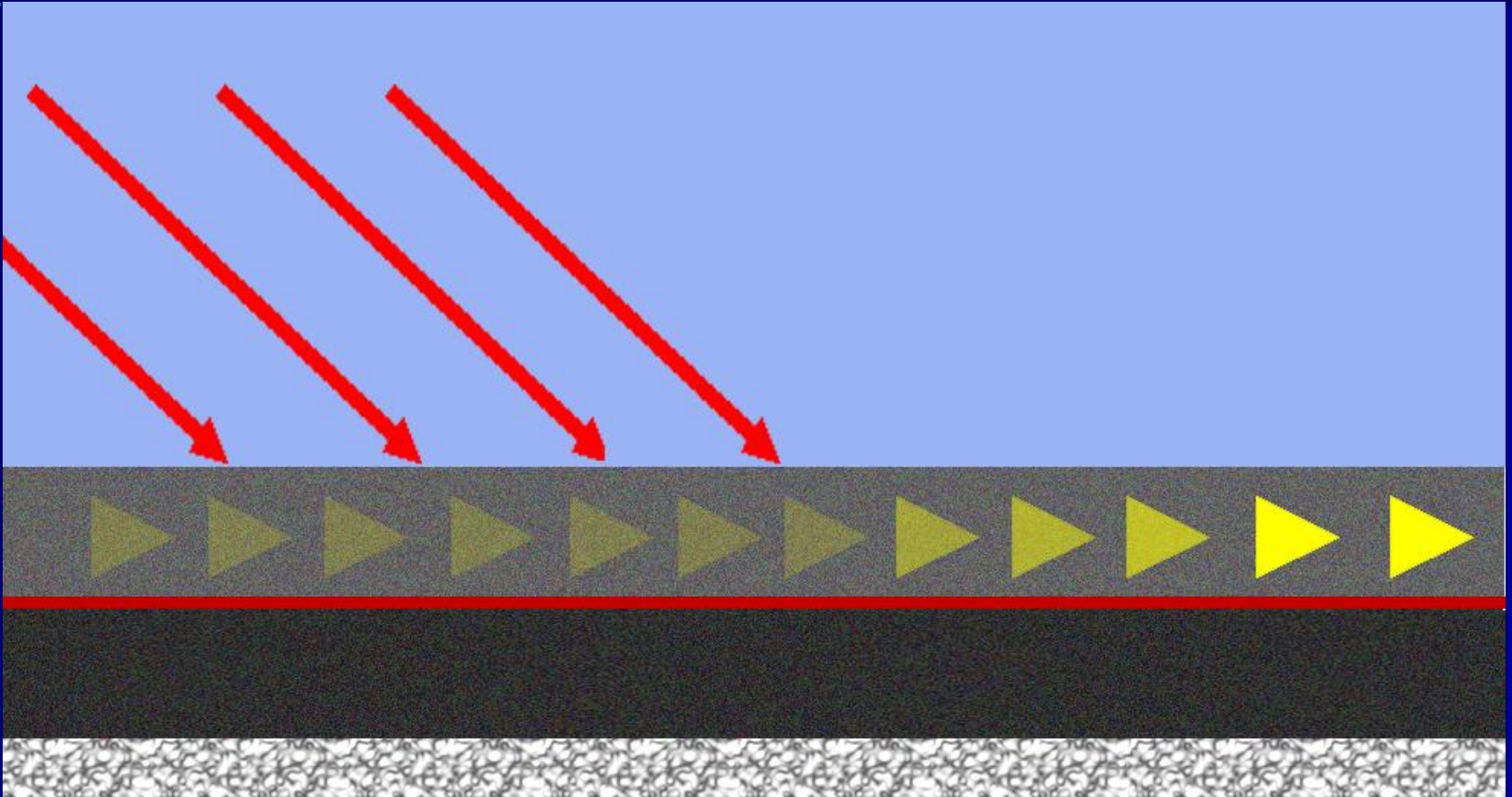
- Runway 2-20 demonstrating increased asphalt pavement deterioration in the form of cracks, shoving, segregation and other pavement stresses
- A slow but steady rise in pavement stresses has resulted in an increase in the presence of foreign object debris (FOD)
- FOD has the ability to severely damage aircraft when accidentally sucked into jet aircraft engines
- Prevention of FOD caused by airfield pavement deterioration is considered one of the FAA's top safety priorities

Abercrombie Administration Timeline

- January 2011: Governor Neil Abercrombie takes office
- January 2011: Engineering firm URS Corp. is awarded contract to determine cause of Runway 2-20 deterioration and repair options
- June 2011: URS Corp. presents preliminary findings to HDOT



Aircraft Landing Impact Creates Asphalt Shift



Cumulative Effects

Cracking



Joint Deterioration



Cumulative Effects

**Surface
Deformation**



**Repeated
Patching**

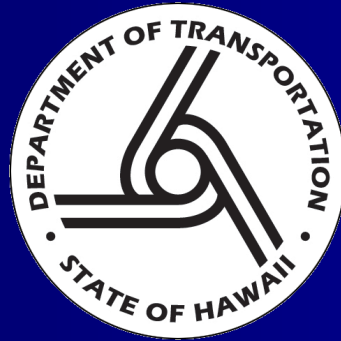


Is it Safe?

From the FAA:

“The runways at Kahului Airport are safe in their current condition, HDOT has been making repairs as needed to the airport’s primary runway. We notified HDOT that we consider this type of repair to be maintenance and it is not eligible for federal Airport Improvement Program (AIP) funding. We suggested that a more permanent solution would be eligible for AIP funding, depending on the availability of those funds.”

HDOT'S Number One Priority



Safety

Runway 2-20 Repair Options

■ Option 1

- No wide body aircraft landings for eight to ten weeks

■ Option 2

- No wide body aircraft landings for three weeks

■ Option 3

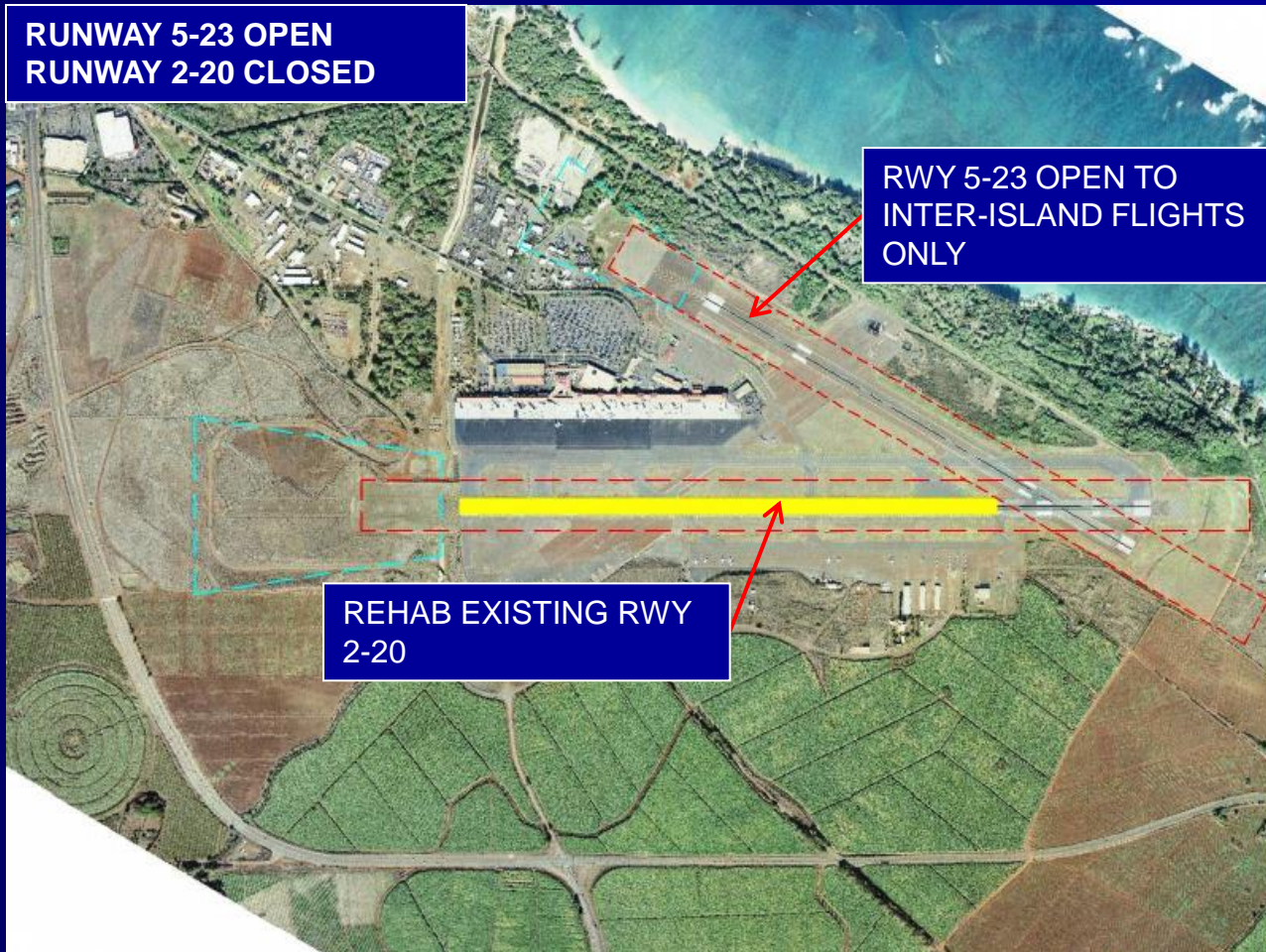
- No aircraft landing restrictions

Option 1: No Wide Body Aircraft Landings For Eight to Ten Weeks

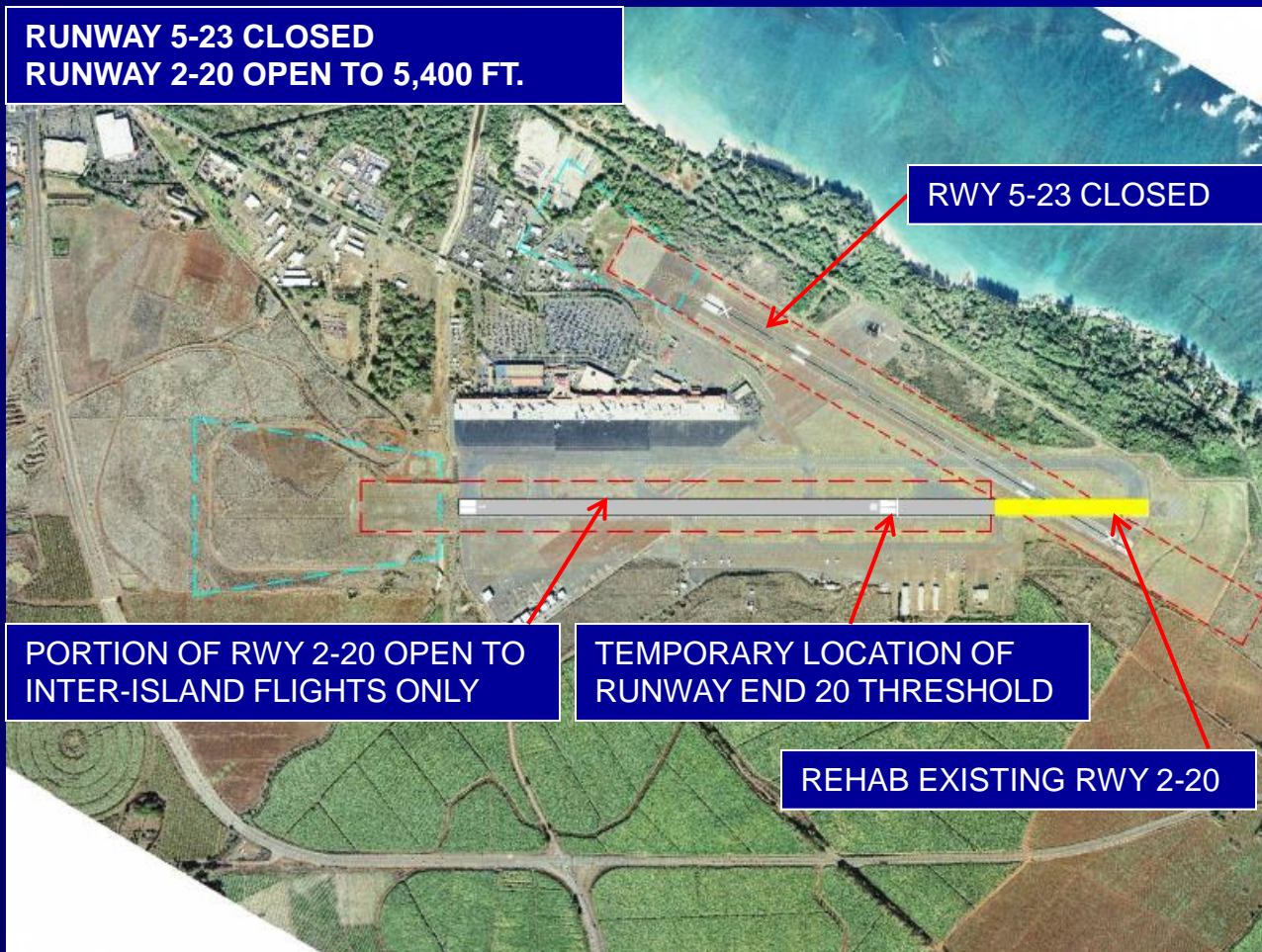
- Requires no additional runway extension
- Runway 2-20 repair
- Estimated Cost: \$34 million to \$47 million
(75% FAA funds, 25% airport user fees)



Option 1: Phase 1



Option 1: Phase 2



Potential Economic Impact

- 2,678,369 airline passengers to Maui in 2010*
- 1,449,880 (55%) direct overseas arrivals*
- Spent an average \$35 million a week**
- Potential loss of \$350 million over 10 week period**
- Potential loss of \$175 million with 50% loss of overseas arrivals **

* Dept. of Business, Economic Development & Tourism

** Hawai'i Tourism Authority



Trickle-Down Effect

- Staff reductions at hotels & resorts, tour companies, airport
- Drop in customers to any business that serves tourism industry employees
- Drop in demand for Maui-grown agriculture products



Unknown Economic Impact

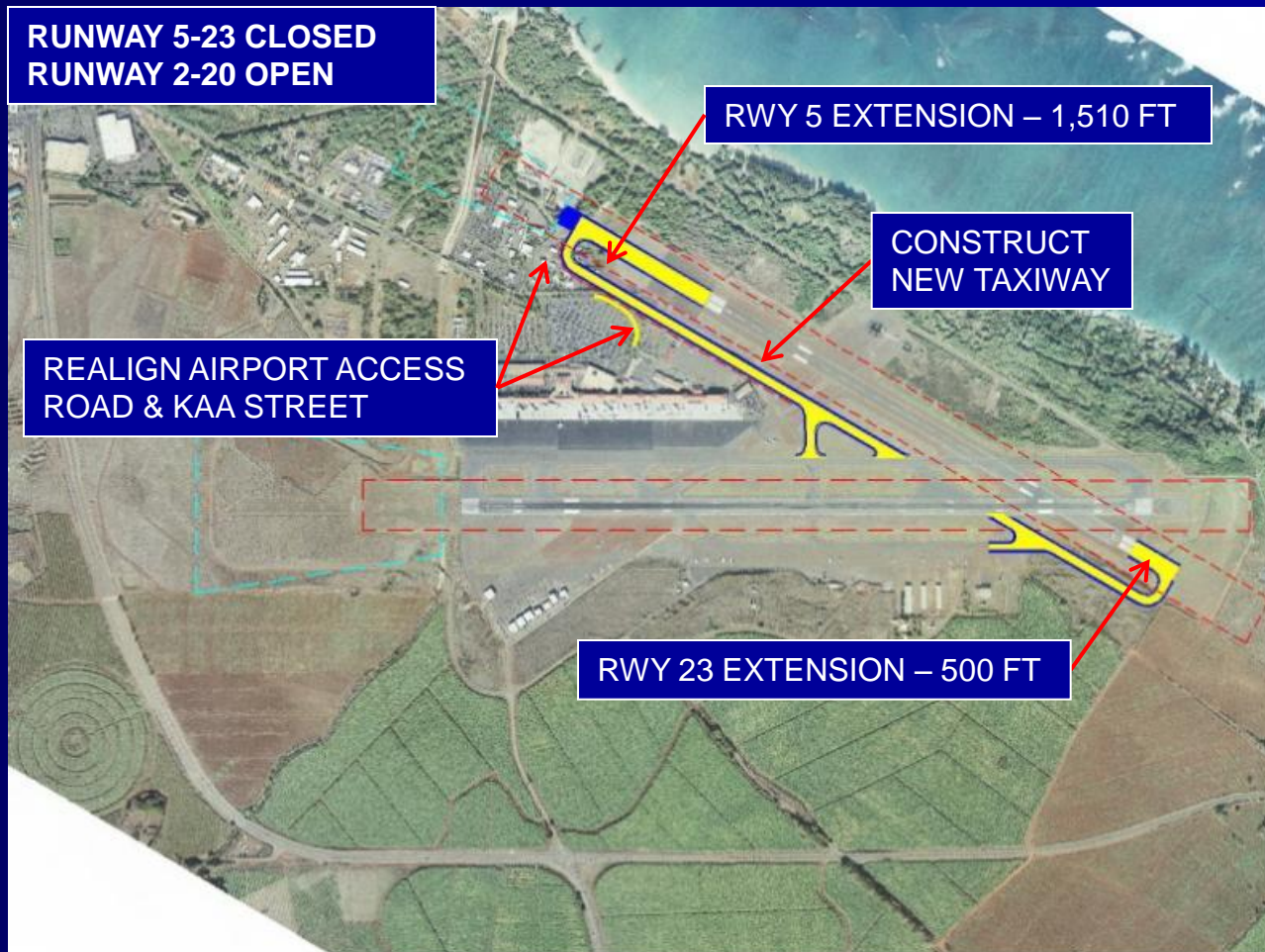
- How many overseas visitors would cancel trips?
- Would all airlines resume service and when?
- Could it damage Maui's national & international reputation?
- What would be the true economic impact?

Option 2: No Wide Body Aircraft Landings For Three Weeks

- Requires 2,000 ft. extension of runway 5-23
- Estimated Cost: \$66 million to \$84 million
(75% FAA funds, 25% airport user fees)



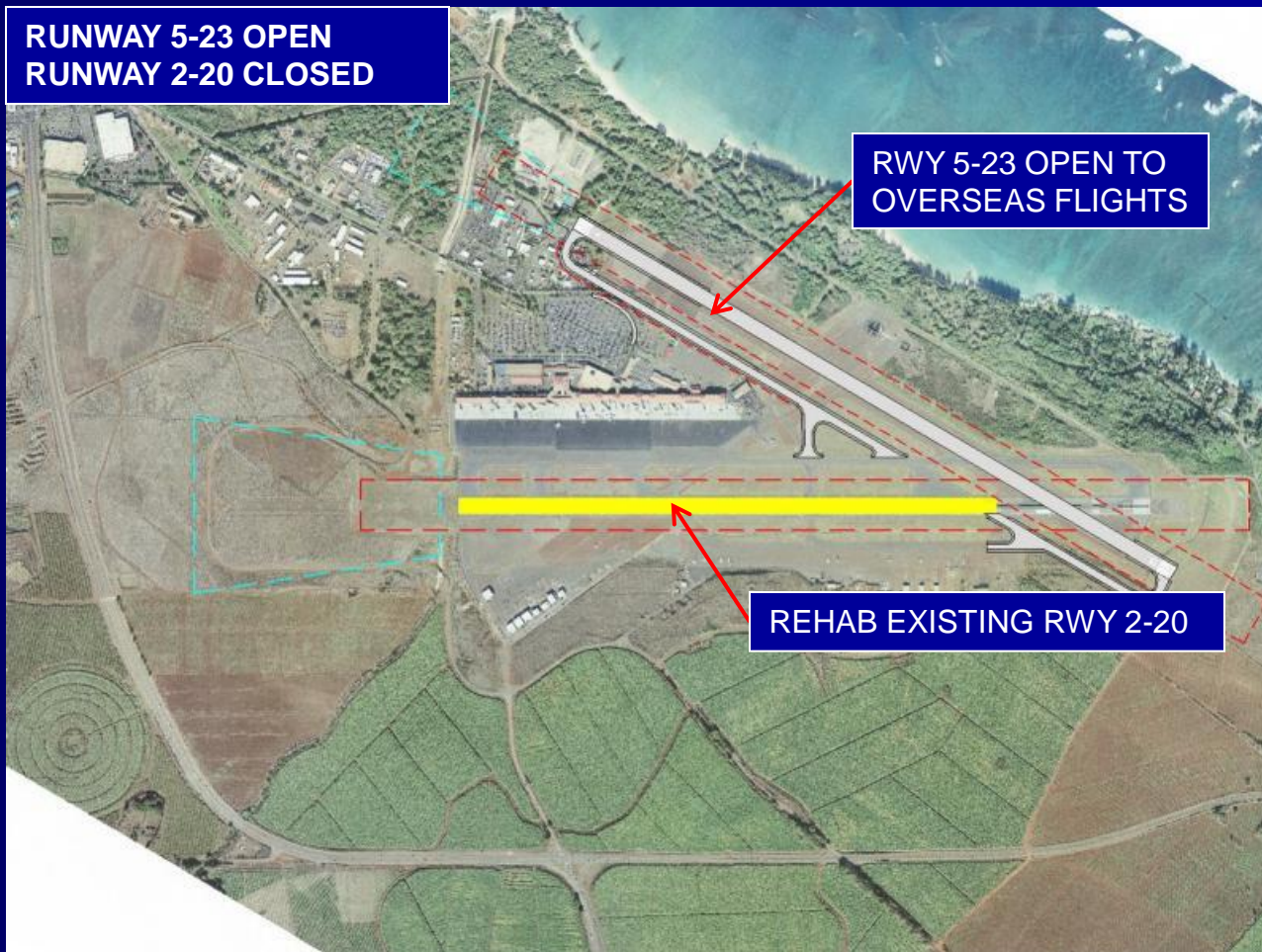
Option 2: Phase 1



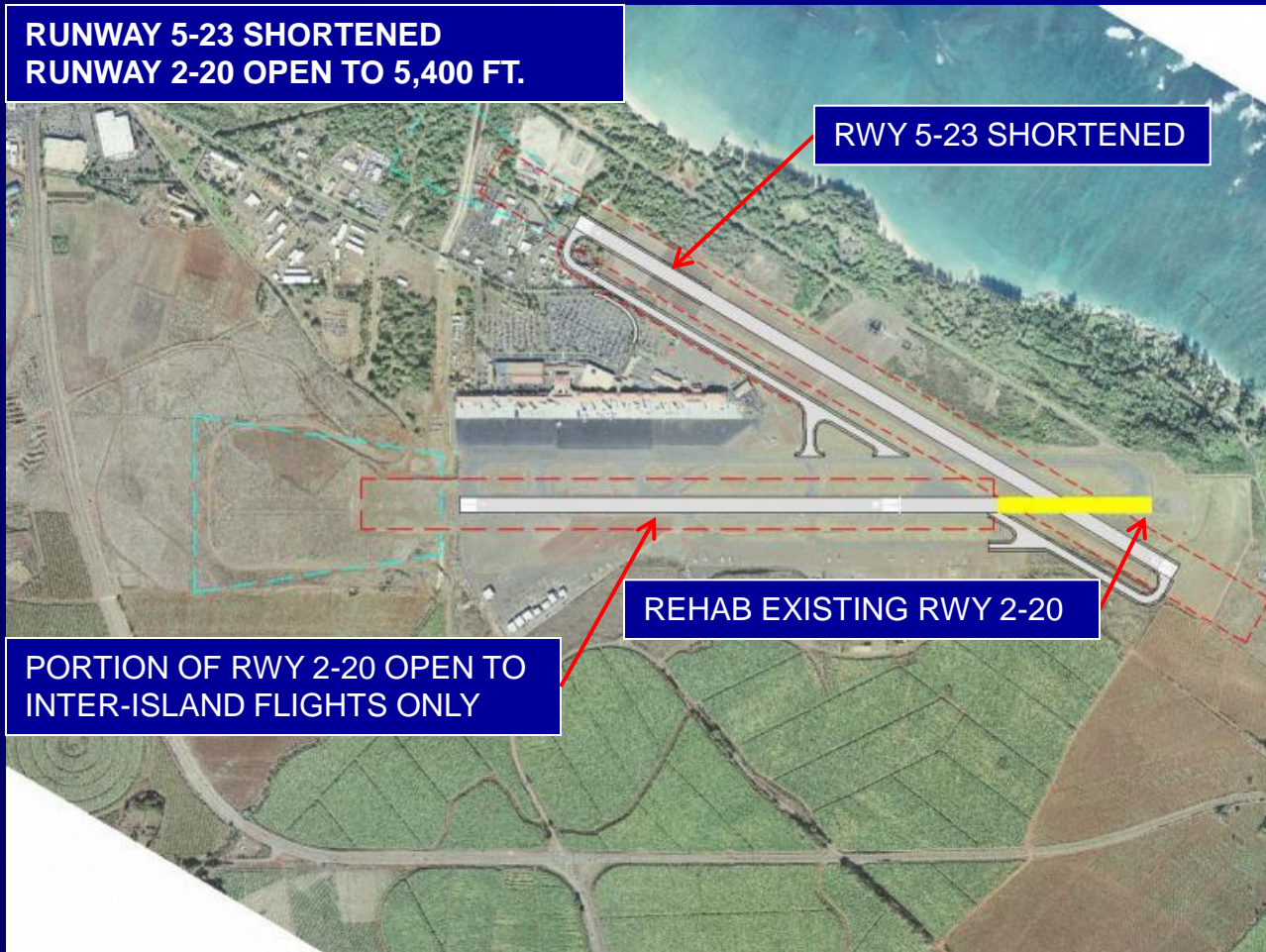
Consolidated Car Rental (CONRAC) Facility



Option 2: Phase 2



Option 2: Phase 3



Potential Community Impacts

- 2,678,369 airline passengers to Maui in 2010*
- 1,449,880 (55 percent) direct overseas arrivals*
- Spent an average \$35 million a week**
- Potential loss of \$105 million over 3 week period**
- Potential loss of \$52.5 million with 50 percent loss of overseas arrivals **

* Dept. of Business, Economic Development & Tourism

** Hawai'i Tourism Authority



Trickle-Down Effect

- Staff reductions at hotels & resorts, tour companies, airport
- Drop in customers to any business that serves tourism industry employees
- Drop in demand for Maui-grown agriculture products



Unknown Economic Impact

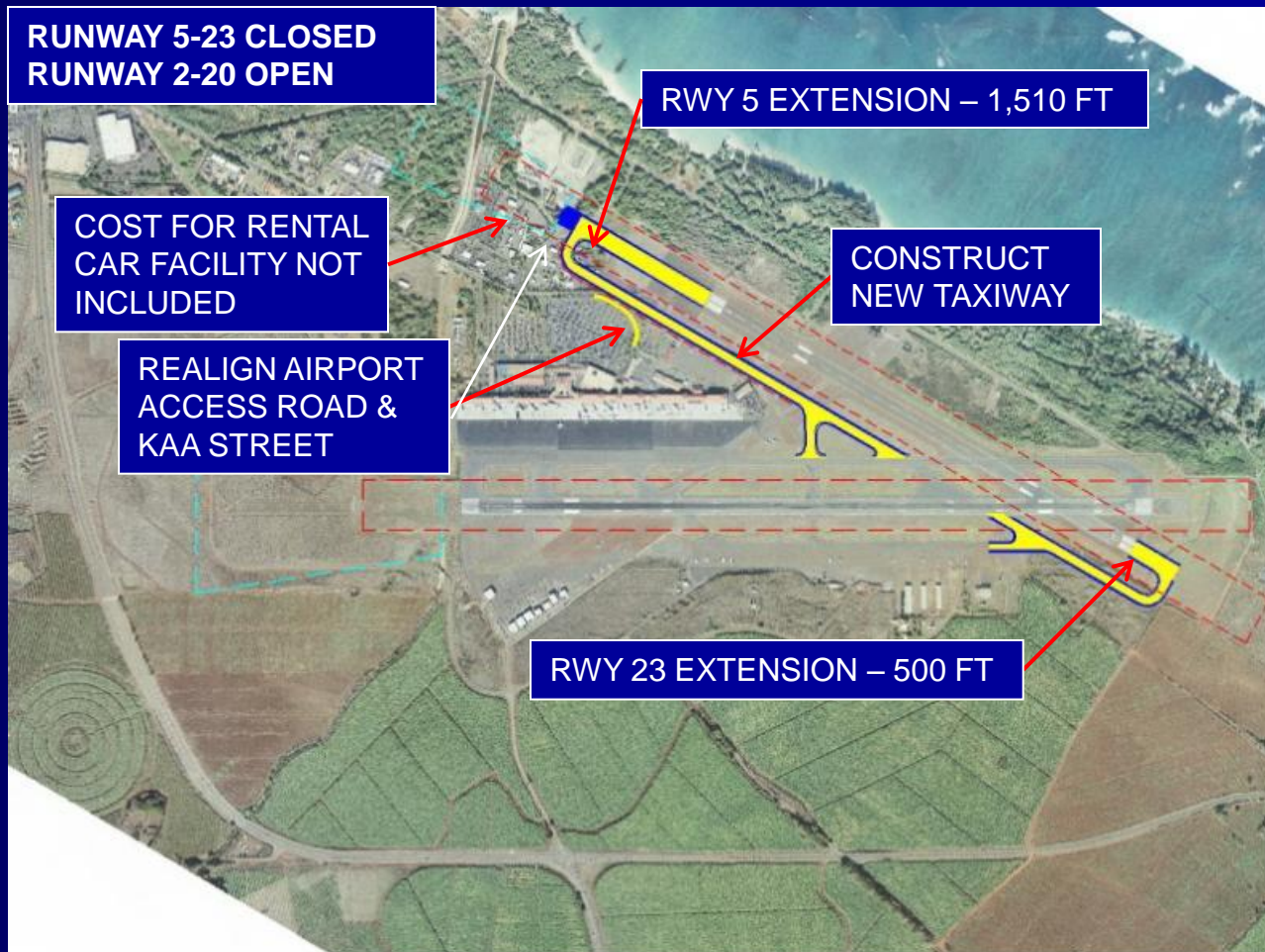
- How many overseas visitors would cancel trips?
- Would all airlines resume service and when?
- Could it damage Maui's national & international reputation?
- What would be the true economic impact?

Option 3: No Aircraft Landing Restrictions

- Requires additional runway extensions:
 - 2,000 ft. extension of Runway 5-23
 - 1,600 ft. extension to Runway 2-20
- Estimated Cost: \$110 million to \$134 million
(75% FAA funds, 25% airport user fees)



Option 3: Phase 1



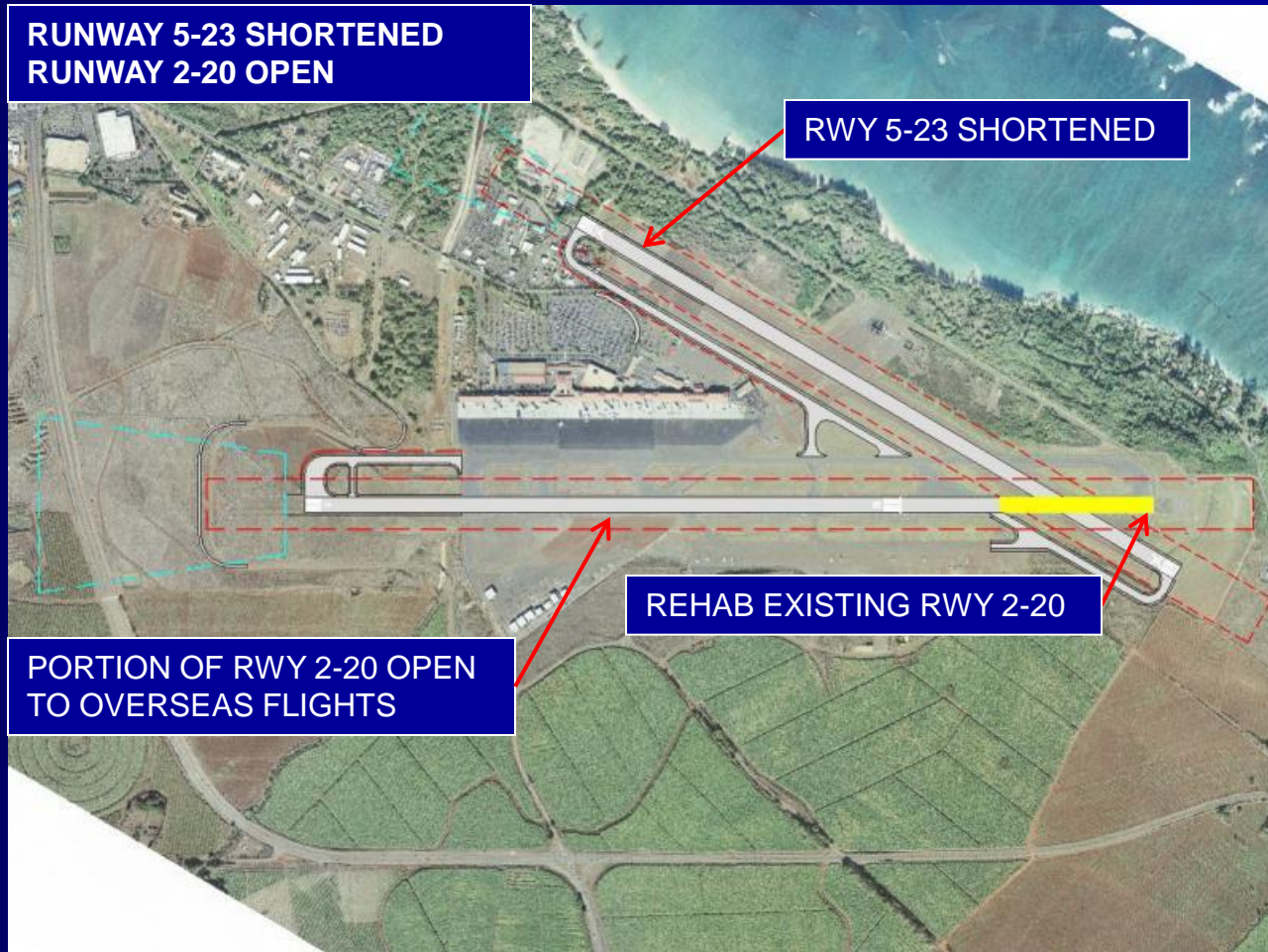
Consolidated Car Rental (CONRAC) Facility



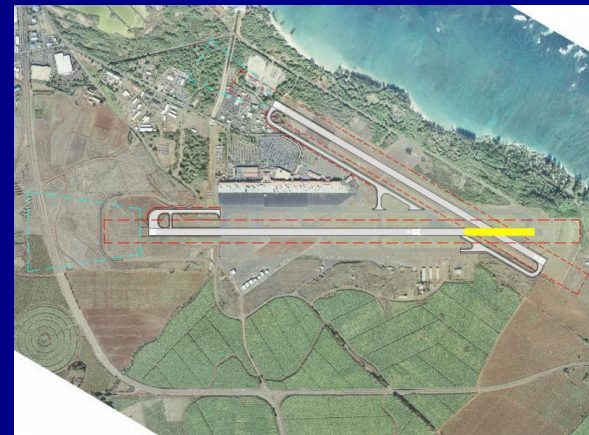
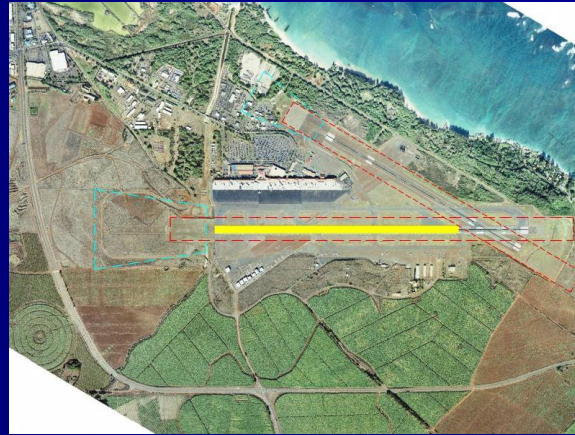
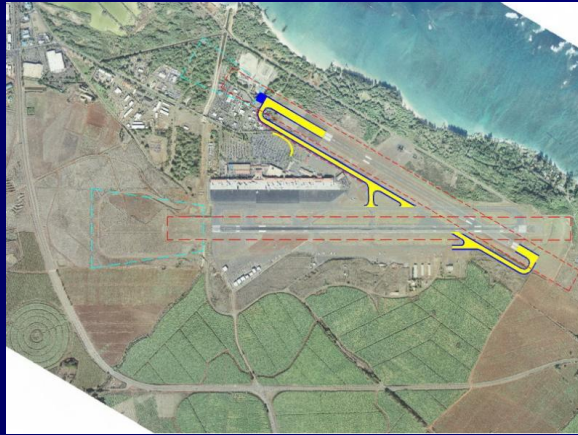
Option 3: Phase 2



Option 3: Phase 3

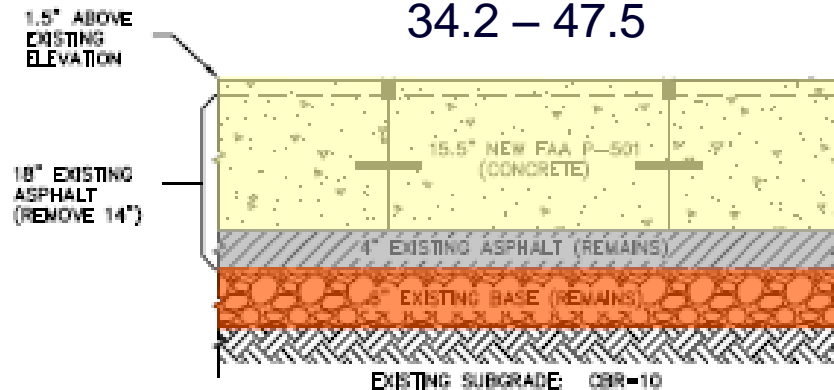


Which option do you prefer?

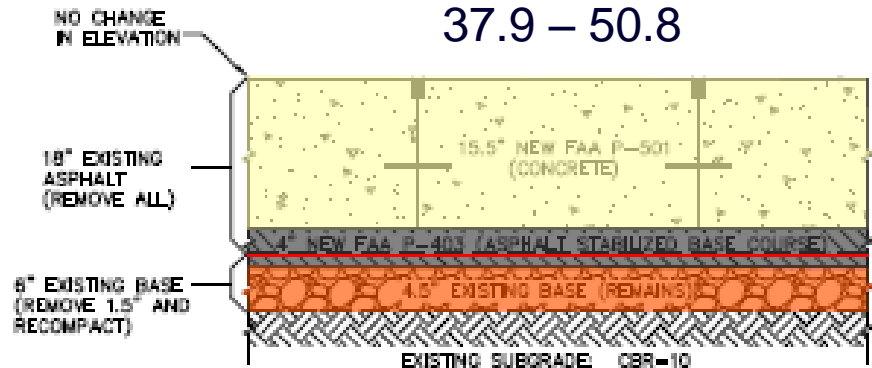


Pavement Repair Alternatives

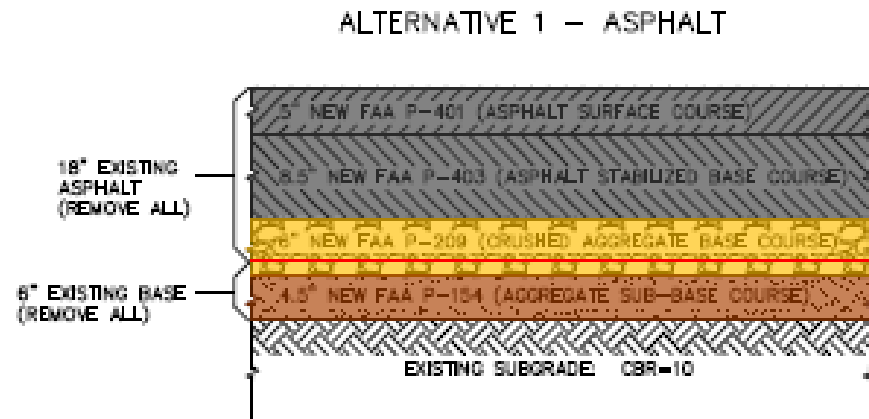
Alternative 1 – Concrete / No Subgrade Preparation 34.2 – 47.5



Alternative 2 – Concrete / Subgrade Preparation 37.9 – 50.8



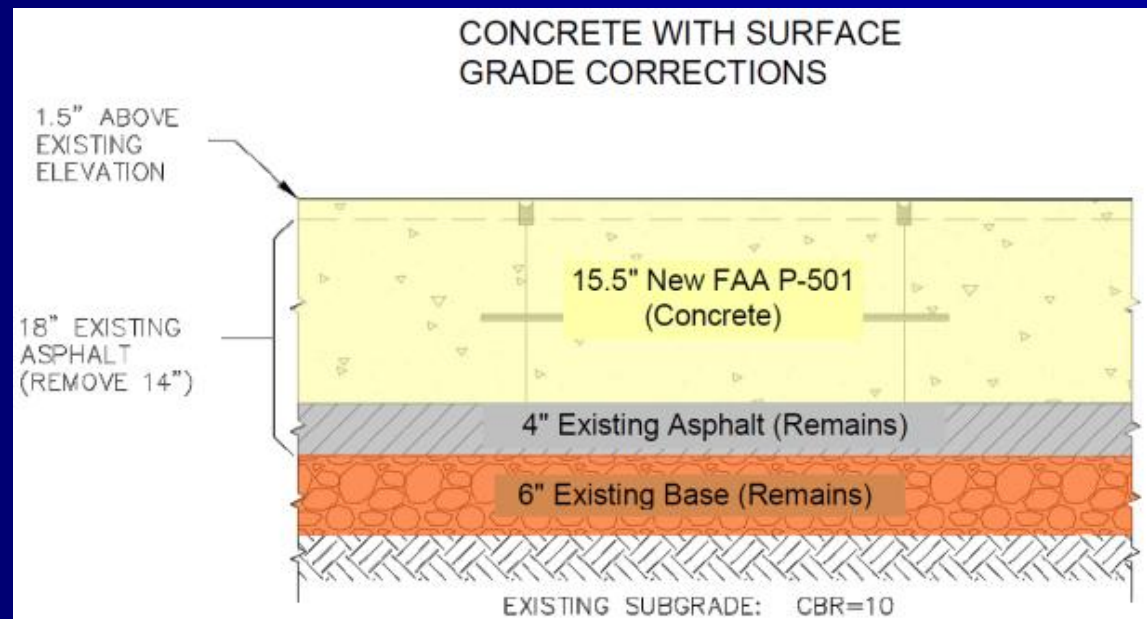
Alternative 3 – Asphalt / Subgrade Preparation



Recommended Repair – Alternative 1

Concrete / No Subgrade Preparation

- Removal of 14 inches of existing asphalt pavement.
- Construction of average of 15.5 inches of concrete pavement to be placed on remaining 4 inches of existing asphalt pavement.
- Existing aggregate base material and subgrade soils would remain undisturbed.



MAHALO

QUESTIONS